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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,547	07/02/2003	Jun Yamaguchi	116428	4984
25944	7590	08/10/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			LEVI, DAMEON E	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	Application No. 10/611,547	Applicant(s) YAMAGUCHI ET AL.	
	Examiner Dameon E. Levi	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3-13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamba et al US Patent 5920119 in view of Loibl et al US Patent 6180880.**

Regarding claim 1, Tamba et al discloses an apparatus comprising:

a heat radiating member(element 11, Fig 1), one surface of the heat radiating member being a circuit arrangement surface(element 15, Figs 1, 5-12) having a circuit arrangement region, the circuit arrangement region being a predetermined region of the circuit arrangement surface of the heat radiating member;

a power circuit section (element 14, Figs 1, 5-12) including at least one electronic part (element 16, Figs 1,5-12), the entire power circuit being arranged in the circuit arrangement region of the heat radiating member;

a wall member (element 10, Fig 1) formed surrounding the circuit arrangement region, the wall member and the heat radiating member forming a unitary space, the heat radiating member being a bottom of the space, for accepting a waterproofing resin, and a resin layer (element 18, Figs 1, and 5-12) disposed in the space defined by the wall member and the heat radiating member, wherein the electronic part has a plurality of

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leg portions (element 19, Figs 1, 5-12), and the resin layer seals at least the leg portions.

Tamba et al does not expressly teach the wall member comprising a groove in an edge facing the heat radiating member ;

a seal member disposed in the groove such that the seal member temporarily prevents the waterproofing resin from being leaked from the surrounding wall.

Loibl et al discloses an apparatus wherein a wall member(element 2, Figs 1-3) comprising a groove(element 22, Figs 1-3) in an edge facing the heat radiating member(element 1, Figs 1-3), a seal member (element 3, Figs 1-3) disposed in the groove such that the seal member temporarily prevents the waterproofing resin from being leaked from the surrounding wall.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a groove in the wall member and to have included a seal member in the groove in the manner as taught by Loibl et al in the device apparatus as taught by Tamba et al for the purpose of sealing the device against fluid leakage(see Loibl et al column 4, lines 43-53).

Regarding claim 3, Tamba et al discloses the power circuit section includes at least one bus bar(element 12, Figs 1, 5-12); the wall member includes a hood(element 1E, Figs 1, 5-12);; and an end portion of the bus bar is inserted into the hood.

Regarding claim 4, Tamba et al discloses wherein: the wall member further includes a through hole communicating a side of the heat radiating member and a side of the

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hood; and a part of the bus bar passes through the through hole(see through hole in element 1E, that element 12 passes through, Figs 1, 5-12).

Regarding claim 5, Tamba et al discloses wherein: the wall member further includes: a recess portion(elements 80, Figs 1, 5-12); and another through hole communicating the side of the heat radiating member and the recess portion.

Regarding claim 6, Tamba et al discloses wherein: the bus bar has: a first portion extending in parallel with the circuit arrangement surface; and a second portion standing up from the circuit arrangement surface and inserted into the hood(see elements 12, Figs 1, 5-12);.

Regarding claim 7, Tamba et al discloses wherein: the wall member defines a second groove; the bus bar has; a first portion extending in parallel with the circuit arrangement surface; a second portion standing up from the circuit arrangement surface; and a third portion extending through the second groove(see grooves in elements 1E wherein elements 12 reside, Figs 1, 5-12).

Regarding claim 8, Tamba et al discloses wherein the bus bar protrudes from at least one of side edges of the power circuit section in outward directions(see elements 12, Figs 1, 5-12).

Regarding claim 9, Tamba et al discloses further comprising: an insulating layer disposed between the heat radiating member and the power circuit section(see elements 101, Figs 1, 5-12).

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Regarding claim 10, Tamba et al discloses wherein the insulating layer is thermally connected with the heat radiating member and the power circuit section(see elements 101, Figs 1, 5-12).

Regarding claim 11, Tamba et al discloses 1, further comprising: a lid attached to the wall member to cover the power circuit section(see elements 17, Figs 1, 5-12).

Regarding claim 12, Tamba et al discloses further comprising a bus bar constitution plate including a plurality of bus bars(elements 12, 126, Figs 1, 5-12), wherein; the electronic part is electrically connected to the power circuit section and at least one of the bus bars.

Regarding claims 13, and 15-20, the methods disclosed therein are deemed as being inherent in the assembly of the claimed apparatus since the prior art combination of record above teaches or suggests all the elements therein. The claims are thus subsequently rejected.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-13, and 15-20 submitted in the Request for Continued Examination have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E. Levi whose telephone number is (571) 272-2105. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00).


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dameon E Levi  
Examiner  
Art Unit 2841

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